

Recombinant Human RSPO1

Catalog No: CX83

Description	Recombinant Human R-spondin-1 is produced by our Mammalian expression system and the target gene encoding Arg31-Ala263 is expressed with a 6His tag at the C-terminus.
Source	Human Cells
Alternative name	RSPO1; R-spondin1; RP11-566C13.1; CRISTIN3; FLJ40906; RSPO Rspo1; R-spondin; Rspodin; RP23-325M14.2; Roof plate-specific spondin-1
Accession No.	Q2MKA7
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.
Reconstitution	<p>Always centrifuge tubes before opening. Do not mix by vortex or pipetting.</p> <p>It is not recommended to reconstitute to a concentration less than 100µg/ml.</p> <p>Dissolve the lyophilized protein in distilled water.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>
Quality Control	<p>Purity: Greater than 90% as determined by reducing SDS-PAGE.</p> <p>Endotoxin: Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.</p>
Shipping	<p>The product is shipped at ambient temperature.</p> <p>Upon receipt, store it immediately at the temperature listed below.</p>
Storage	<p>Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks.</p> <p>Reconstituted protein solution can be stored at 4-7°C for 2-7 days.</p> <p>Aliquots of reconstituted samples are stable at < -20°C for 3 months.</p>
Amino Acid Sequence	<p>RISAEGSQACAKGCELCSEVNGCLKCSPKLFILLERNDIRQVGVCLPSCPPGYFDARNPDMNKCICKIEH CEACFSHNFCTKCKEGLYLHKGRCYPACPEGSSAANGTMECSSPAQCEMSEWSPWGPCSKKQQLCGF RRGSEERTRRVLHAPVGDHAACSDTKETRRCTVRRVPCPEGQKRRKGGQGRRENANRNLARKESKEA GAGSRRRKGGQQQQQQGTVGPLTSAGPAVDHHHHHH</p>

Background

RSPO1 is a secreted protein, containing 2 FU(furin-like) repeats and 1 TSP type-1 domain and belonging to the R-spondin family. RSPO1 is required for the early development of gonads, regardless of sex. It has been found in mice only eleven days after fertilization. To induce cell proliferation, it acts synergistically with WNT4. They help stabilize β catenin, which activates downstream targets. RSPO1 is necessary in female sex development. It augments the WNT/β catenin pathway to oppose male sex development. In critical gonadal stages, between six and nine weeks after fertilization, the ovaries upregulate it while the testes downregulate it. RSPO1 can potentially aid in the treatment of mucositis, which is characterized by inflammation of the oral cavity. This unfortunate condition often accompanies chemotherapy and radiation in cancer patients with head and neck tumors.

SDS-Page

